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Development of templated biomaterial sorbents for uptake of waterborne contaminants

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Green synthetic strategies of cross-linked polysaccharide scaffolds have shown the utility of templated sorbent materials for the uptake of waterborne contaminants. Templated polysaccharide materials represent versatile platforms for the design of sorbent materials because tunable uptake properties toward a range of chemical species with variable hydrophile-lipophile balance. Synthetic engineering through chemical cross-linking and templation offers a modular strategy for polymeric sorbent materials with tunable structural and physicochemical properties. In this presentation, recent research examples concerning the sorption properties of synthetically engineered sorbent materials and waterborne contaminants will be reviewed. The results of this research are anticipated to contribute favourably to adsorbent technology focused on the specialized removal of water borne contaminants and chemical separations.

Biography

Lee D Wilson (PhD) is an Associate Professor of Chemistry at the University of Saskatchewan. He specializes in Physical Chemistry and Materials Science and is currently researching the development of new types of materials and their physicochemical properties for adsorptive applications in environmental science, chemical separations, and water science. He completed a PhD in Physical Chemistry from the University of Saskatchewan (1998) and is the recipient of numerous scientific and community awards, and maintains an active involvement in several national organizations.

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